

# **Vermont Lighting Market Analysis**

**DOE SSL Market  
Development Workshop**



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# Vermont Lighting Market Analysis Goals

1. Estimate the **market penetration** in Vermont for commercial & industrial (C&I) lighting measures
2. Identify future ***attainable savings potential***
3. Use market analysis insight to shape **long term goals and strategies**

Market Analysis

Future Potential

Strategies

# Sources Used

## National

- *U.S. Lighting Market Characterization* (Navigant, 2010)
- *Adoption of Light-Emitting Diodes in Common Lighting Applications* (Navigant, 2013)
- *Energy Savings Forecast of Solid-State Lighting in General Illumination Applications* (Navigant, 2014)
- U.S. Census (2010)

## Vermont

- *Vermont Market Characterization and Assessment, Business Sector Existing Buildings* (Navigant, 2011)
- Efficiency Vermont Program Results (2000-2014)

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# Assumptions

Commercial **sector growth** of 1% annually (per Energy Savings Forecast of Solid-State Lighting in General Illumination Applications)

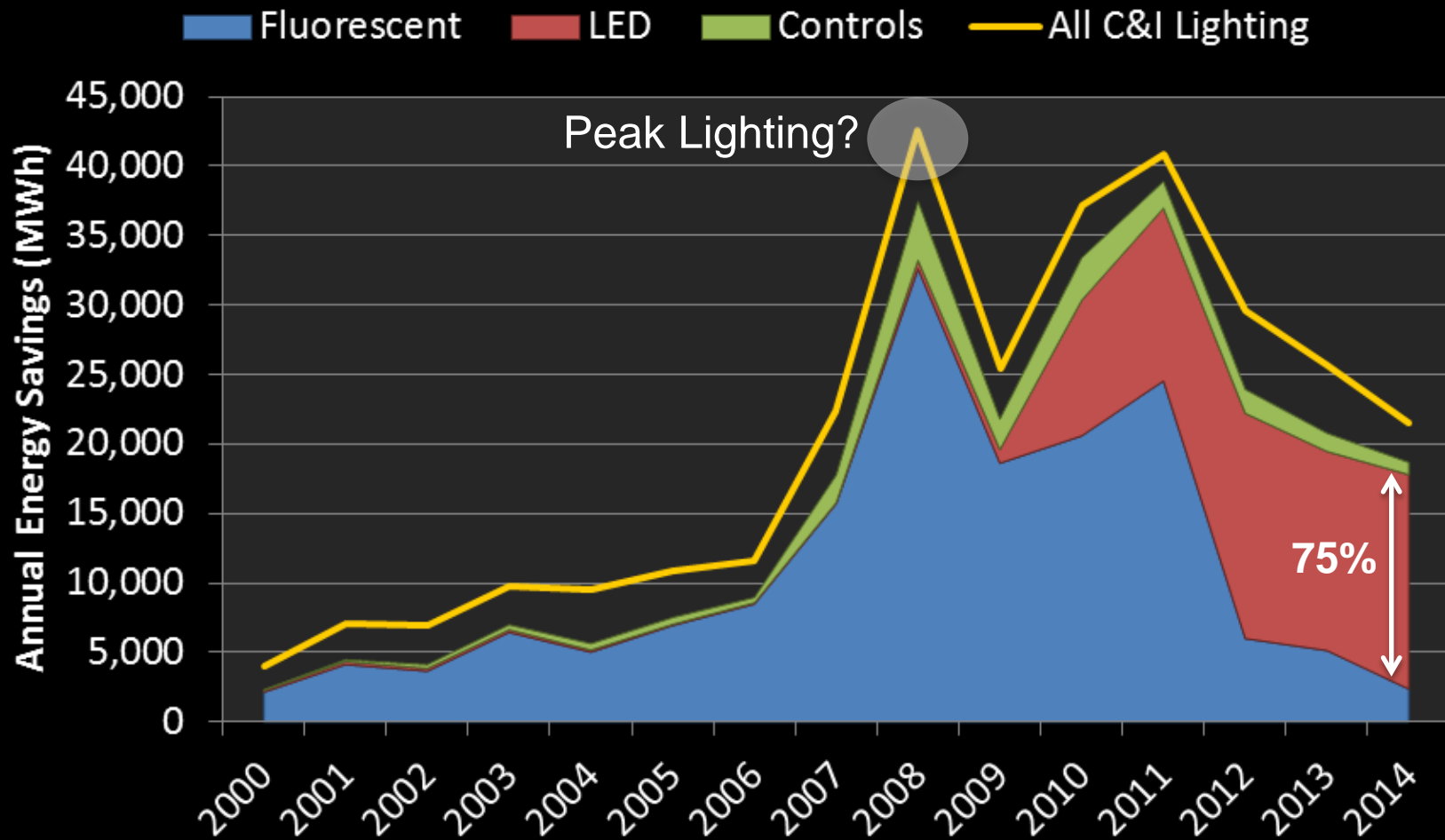
Screw base lamp **in-service rate** of 75%

- 25% not in-service due to failure, early replacement, installation outside of territory, or product stocking

Forecasted **market adoption rates** based on:

- Efficiency Vermont experience
- U.S. DOE price and efficacy projections

# Efficiency Vermont C&I Lighting Savings



# We Know What We've Achieved, But...

What does this information tell us about the level of market transformation?

- Do we even know the size of the market?

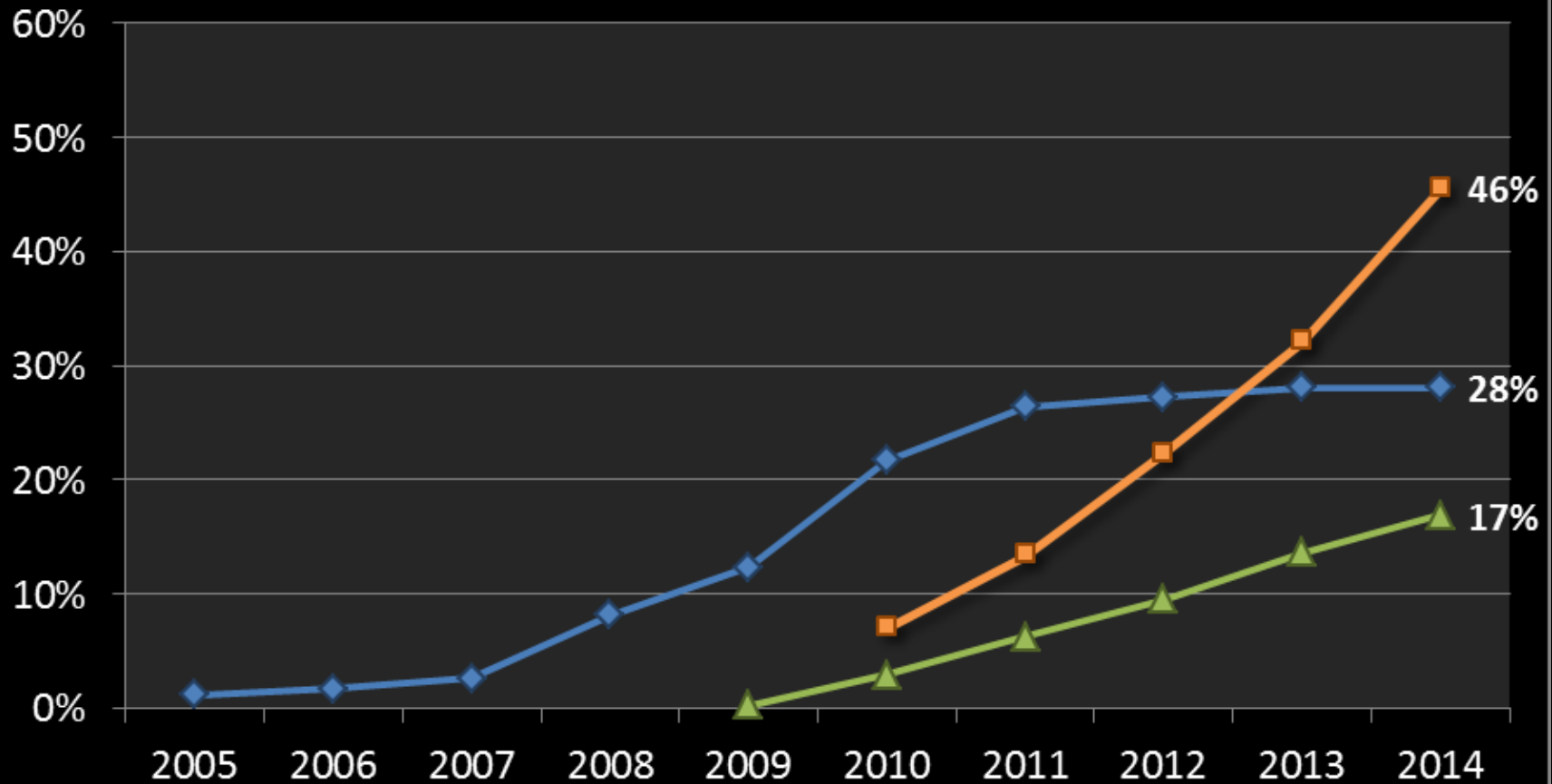
What do we know about the future level of attainable savings?

- “Past performance is not an indicator of future outcome”

How can we develop a strategy when we don't even have a complete understanding of the market?

# Vermont C&I Lighting Market Penetration

—◆— HPT8    —▲— LED - Exterior    —■— LED - Screw Base



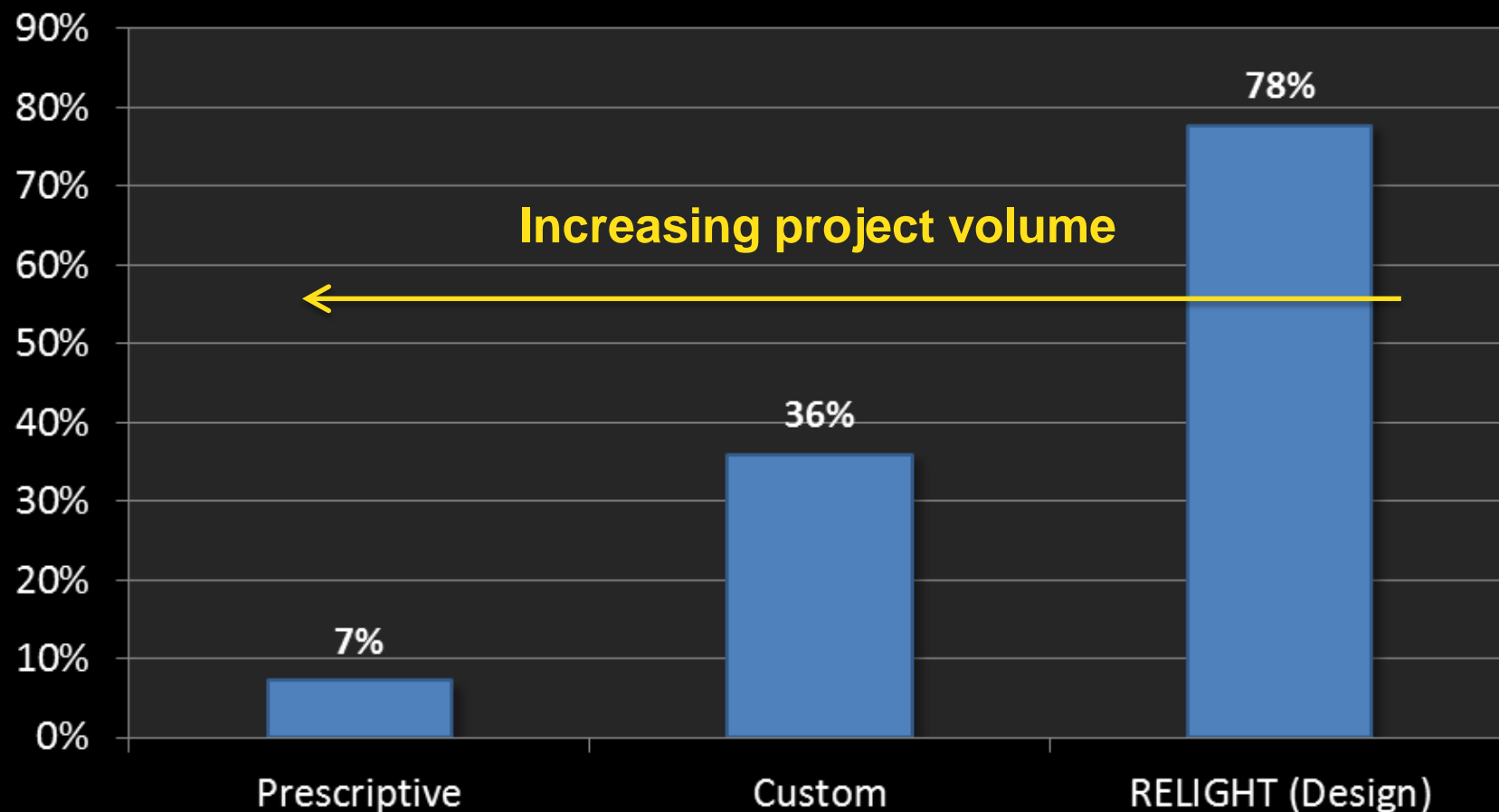
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# Efficiency Vermont Lighting Control Adoption

(% of Lighting Projects that Include Controls)





# Key Takeaways

**HPT8 & T5/HO** are at or near saturation

**Exterior LED** is on a good trajectory

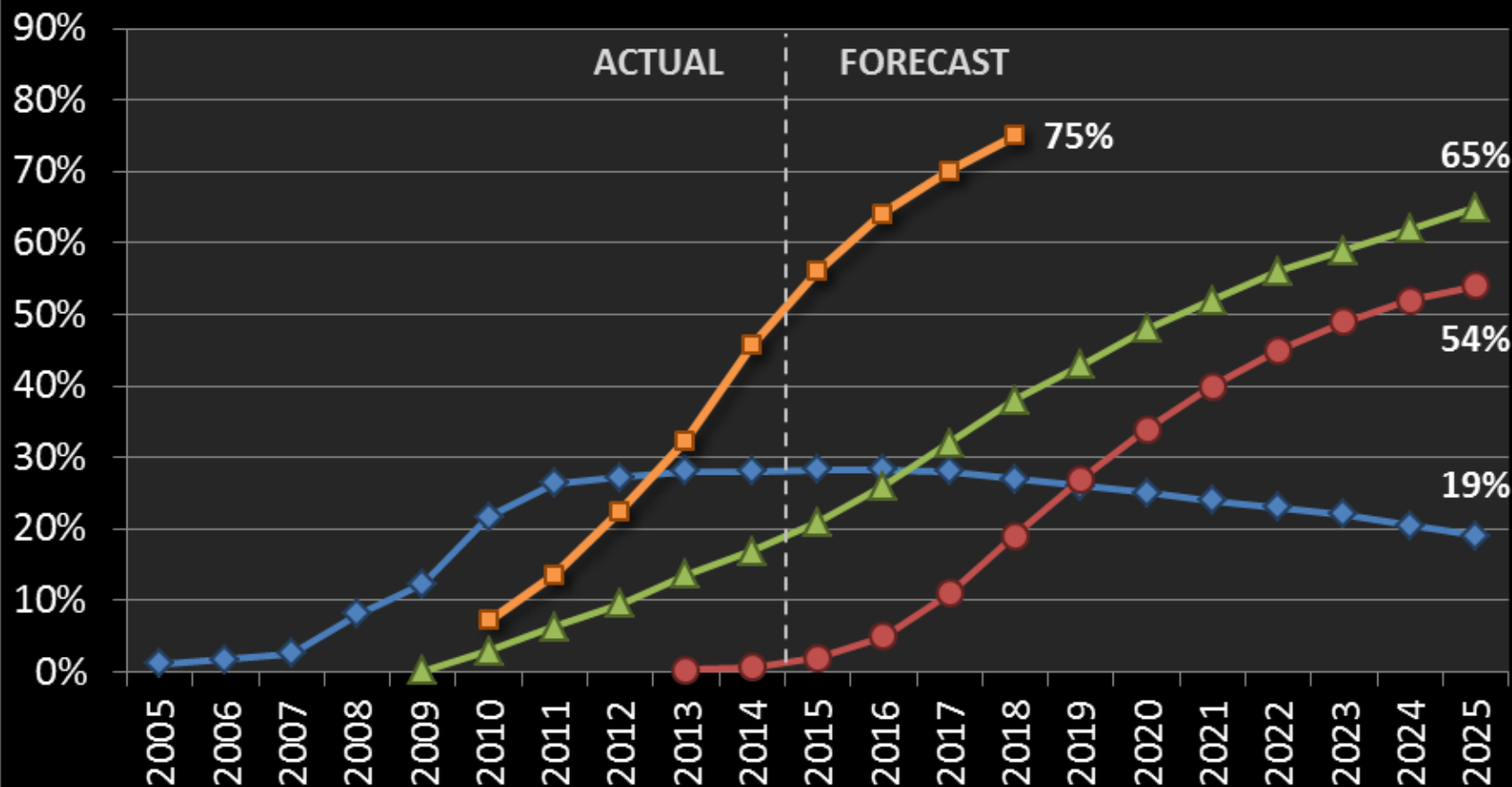
**Screw base LED** trend is impressive, but also unique

- Easy to install measure
- Pent up demand for an EE option superior to CFL
- High incentives applied at the point of sale

**Lighting Controls** have a poor adoption rate across prescriptive and custom programs

# Vermont C&I Lighting Market Penetration

◆ HPT8 
 ▲ LED - Exterior 
 ■ LED - Screw Base 
 ● LED - Troffer et al.

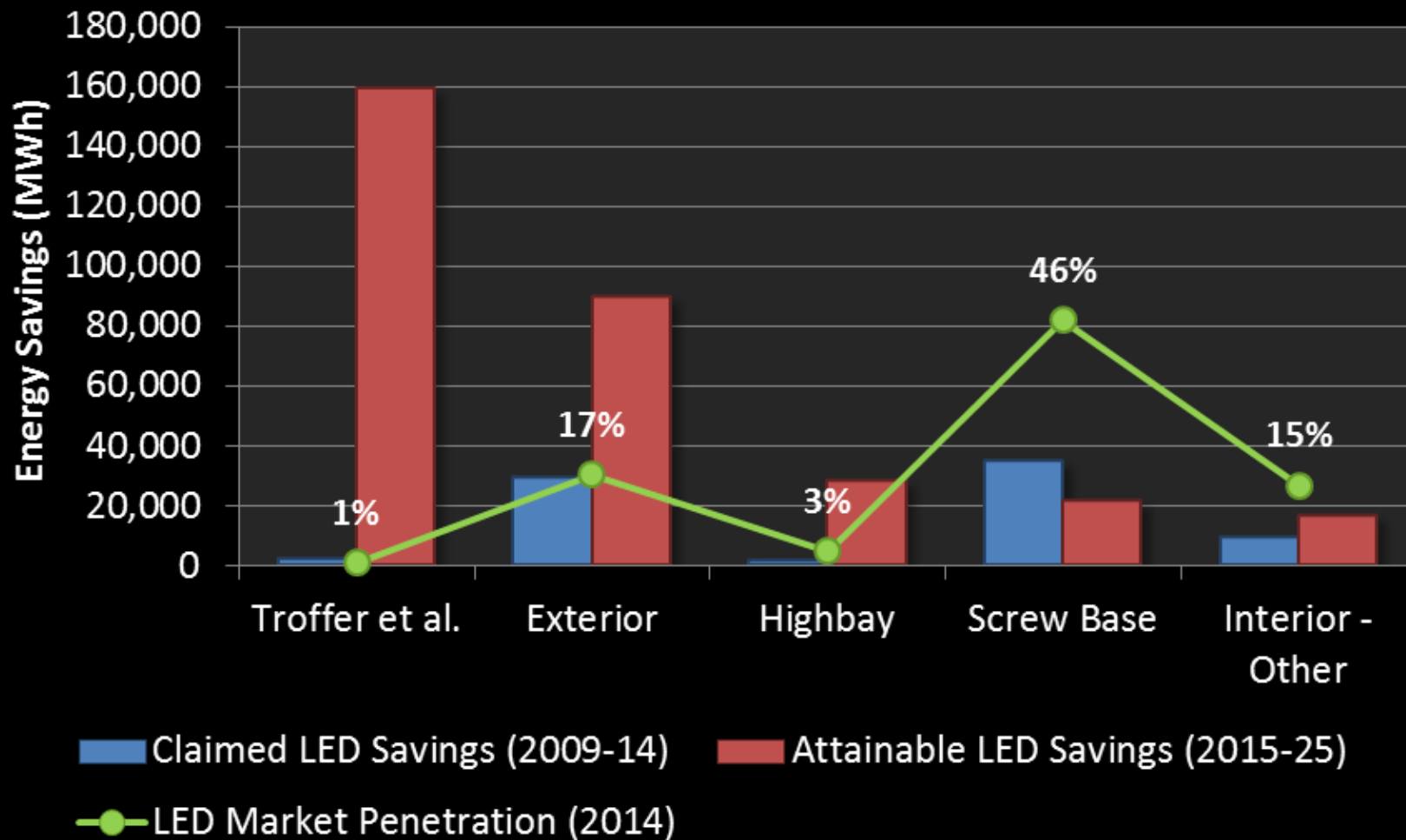


Market Analysis

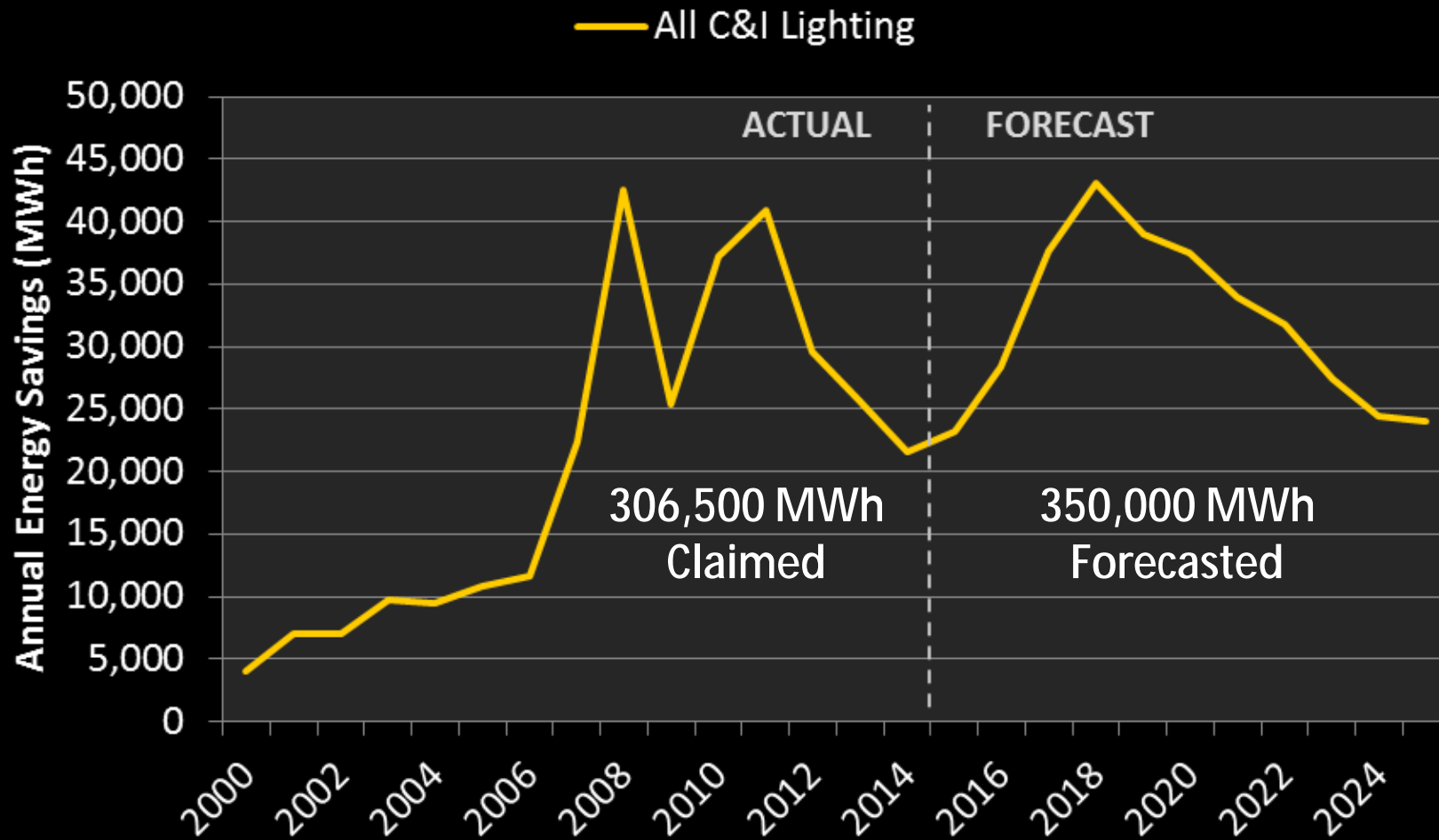
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# Efficiency Vermont C&I LED Savings Analysis



# Efficiency Vermont C&I Lighting Savings



Market Analysis

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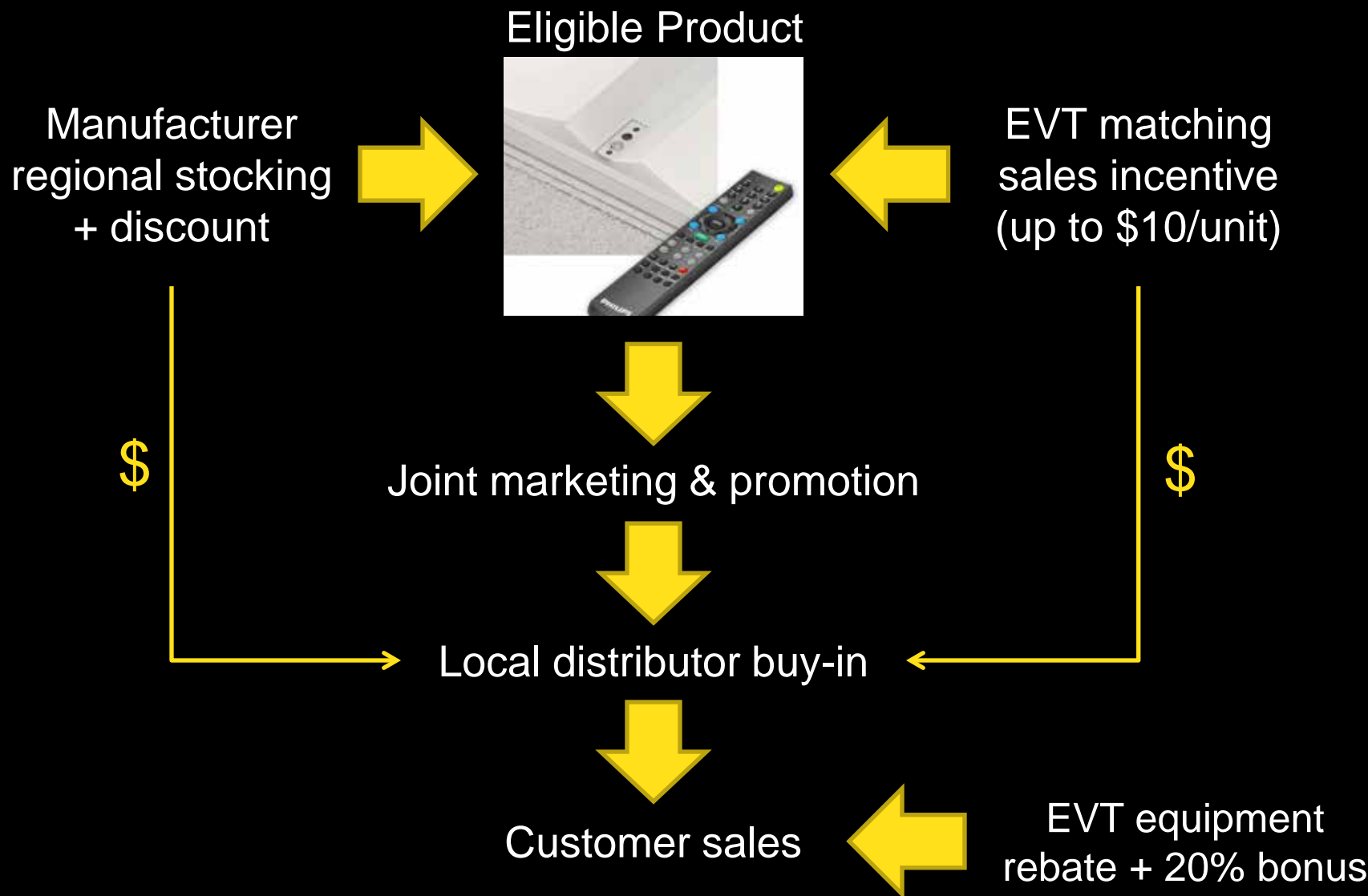
# Key Takeaways

- Market penetration for LED troffer/linear/highbay fixtures is low, but adoption is increasing rapidly
  - Opportunity to address product supply, controls integration and application best practices
- Exterior LED market is well established; need to maintain momentum and maximize opportunity
  - Exterior controls, application guidance
- Screw base LED will be a declining measure for C&I (not the case for residential)

# Accelerating LED Fixture Adoption



# LED Troffer with Controls Promotion



Market Analysis

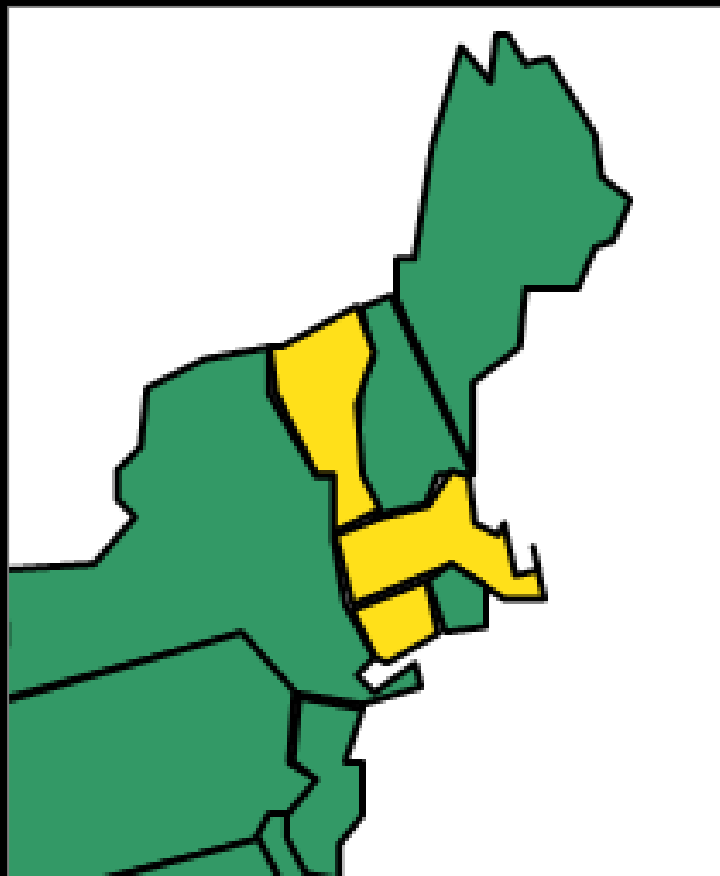
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# LED Troffer with Controls Promotion

## Benefits

- Aligns sales & marketing strategies
- **Significantly reduces product lead times**
- **Creates motivation for distributor to stock & sell**
- Simplifies control installation
- Promotes LED and controls in parallel





# Summary

Vermont results may be a leading indicator for other markets nationwide

Programs must act now on **emerging LED categories**

- Product availability, promotion, application guidance

The solution **must incorporate controls**

Conventional program approaches will not be enough

- **Need creative solutions** to address education, product availability, controls, and promotion

# Thank you!

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